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Appl. No. 10/689,474
Amdt. Dated March 14, 2005
Reply to Office Action of December 16, 2004

REMARKS

The indication of allowable subject matter in claims 8 and 13 is noted and appreciated.

Dependent claim 4 has been amended to fix a typographical error, by deleting the repeated "the" in the first line. Additionally, new claims 20 and 21 have been added.

Regarding the rejection of claim 1, 3, 4 and 5 under 35 U.S.C. §103(a) over McHenry 2,256,779, we respectfully cannot agree with the Examiner's conclusion that it would have been obvious to modify the torque arm of McHenry by attaching it to the handle. McHenry's torque arm 22 is a straight rod having a threaded end 23 engageable with one of the sockets 24 in the cutter A. The opposite end of the rod is held in socket portion 19 of a clamp. With this shape for the rod the only way it could be attached to the drill handle 11 would be to relocate the clamp. The clamp includes a band 17. If band 17 were relocated to attach it to the handle 11, as suggested in the Office Action, it would render the handle unusable. This is because the band 17 would cover the opening between the handle 11 and the housing 10 of the drill. There would be no place for the user to wrap his or her fingers around the handle. This makes the posited modification of McHenry untenable and therefore McHenry cannot render the claims obvious.

Furthermore, claim 1 has been amended to recite a drill construction not found in McHenry. McHenry does not have a handle with a grip portion extending below the drill housing. Claim 1 has also been amended to point out that the torque arm is engageable with the grip portion of the handle. This is not shown in McHenry and, as pointed out above, is not even possible in McHenry due to the location of McHenry's handle behind instead of underneath the drill housing.

It is submitted that the structure of claim 1 is not a mere rearranging of parts, as asserted in the Office Action, because it improves the operation of the cable cutter by eliminating one of the main parts of McHenry. The McHenry device includes the cutter A, the rod 22 and the clamp 17. Mounting these three pieces on the drill likely requires the following procedure. First, the clamp 17 is placed over the chuck and onto the drill housing where it is tightened. The socket portion 19 has to be at the bottom of the drill to align with the sockets 24 of the cutter. Next the rod 22 has to be loosely placed into the socket portion 19. This has to be done from the chuck end of the drill because interference from the handle 11 and cord 12 would make it difficult, if not impossible, to feed the rod 22 from the handle side of the drill. Then the drive shaft 16 of the cutter is placed in the chuck and tightened. Next the rod end 23 is threaded in one of the sockets 24. Finally the thumb screw 21 is tightened on the rod.

Applicant's invention eliminates the need for the clamp 17 by attaching to the depending handle of the drill. Nothing need be tightened to the drill housing, other than the drive shaft 36 engaging the chuck 14. Nothing has to be clamped to the drill handle.

According to paragraph 6 of the present application, the purpose of the torque arm and associated attachment element is to "preven[t] the housing [of the cutter] from spinning relative to the power drill." In order for the McHenry attachment element to accomplish this purpose, its clamp 17 must tightly squeeze the housing of the drill in order to counteract the tendency to rotate. On the other hand, by engaging the handle of the drill, the attachment element of the present invention must only contact the handle in order to prevent rotation of the housing relative

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to the drill. For this reason, in one embodiment, a simple hook is sufficient to prevent relative rotation of the drill and housing.

Regarding claim 3, nothing in McHenry suggests a hook for a torque arm attachment element. Indeed, such a hook on McHenry's rod 23 would make it difficult to impossible to thread into the socket portion 19 of his clamp. This is because McHenry can't thread the end 23 through the back side of the socket 19, due to interference from the handle and cord, and a hook on the opposite end of the rod would make it impossible to thread through the front side of socket 19. Accordingly, it is believed that claim 3 is allowable for this additional reason.

Regarding claim 5, there is no suggestion in McHenry of a slidable connection between the cutter housing and the torque arm. Adjustability in McHenry is provided only by the presence of multiple sockets 24. The rod 23 is threaded into these sockets so there is no slidable adjustment at the cutter. Accordingly, it is believed that claim 5 is allowable for this additional reason.

Turning now to the rejection of claims 1 and 3-5 under 35 U.S.C. §103(a) as being unpatentable over You 5,067,240 in view of McHenry, it is noted that You has no torque arm. Thus, it provides no addition to the teachings of McHenry with respect to a torque arm. Thus, the arguments above with respect to the rejection based on McHenry alone apply equally to the rejection based on You plus McHenry.

The Office Action states that it would have been obvious to combine the McHenry torque arm/attachment element with the You cutter and then modify the torque arm by attaching it to the handle, rather than the housing, of the drill. We submit that McHenry is not properly

combinable with You in this manner for two reasons. First, there is no place in You's structure for attaching a torque arm to the cutter. Nothing is provided in You for making such an attachment. Second, the reason there is no provision in You for a torque arm is there is no suggestion in You of using his cutter with a power drill. A drill is never mentioned in You. You states at Col. 2, beginning at line 46: "By using a lever or the like with driving end 43, not only the operation of the present cutter is made easier but also it can provide an even stronger cutting force." (emphasis added). Thus, You does NOT suggest using his device with a power drill. This is why he provides no torque arm; he doesn't contemplate the torque being great enough to cause the need for a torque arm. Accordingly, You has only marginal relevance to claims 1 and 3-5. Reconsideration of the rejection of these claims is respectfully requested.

Considering now the rejection of claim 2 under 35 U.S.C. §103(a) as being unpatentable over You in view of McHenry and further in view of Lazarevic 6,065,212, the arguments above with respect to You and McHenry apply equally to claim 2. Furthermore, none of the cited references teaches a worm gear in engagement with the worm and mounted for rotation in the housing. Nor do any of the references show a drive gear movable with the worm gear and engageable with one of the cutting blades. Lazarevic is a fundamentally different type of cutting tool. It uses a rotatable and radially-movable cutter blade 37 to score the exterior surface of a tube. Lazarevic relates to a tube cutter, rather than a cable cutter. While a cable cutter uses a shearing force to cut, a tube cutter uses a blade which revolves about the outer perimeter of the hollow tube. A shearing force would either shatter a plastic tube or deform a metal tube. Similarly, the revolving blade of a tube cutter would be inappropriate to cut a cable, which is not

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hollow. Accordingly, Lazarevic is not in Applicant's field of endeavor, because a tube cutter operates much differently than a cable cutter.

In addition to being in a non-analogous field, Lazarevic is directed to a different problem. The present invention, as described in claim 2, is directed to a device which generates a great amount of shearing force through the use of a worm gear assembly. On the other hand, Lazarevic is primarily directed to a tube cutter with an improved mechanism for adjusting the rotating cutting blade to accommodate differently sized tubes. The worm gear assembly of Lazarevic is tangential to his primary goal of solving a problem which is unique to tube cutting. Accordingly, one attempting to solve the problem addressed by claim 2 of the present invention would not be motivated to look for the answer in a reference addressing a tube cutting concern. Therefore, it is improper to use a combination of references which includes Lazarevic to reject claim 2. Reconsideration of the rejection of claim 2 is requested.

With regard to the rejection of claims 6 and 7 under 35 U.S.C. §103(a) as being unpatentable over You and/or McHenry and further in view of Rudolf 6,155,916, these claims are allowable for the reasons stated above regarding claim 1.

Turning now to the rejection of claims 9 and 15-17 under 35 U.S.C. §103(a) as being unpatentable over You in view of Lazarevic, Lazarevic is cited for the use of a worm gear 28, a drive gear 64 and a main shaft (see Fig. 10) for the purpose of obtaining a large torque, which increases the cutting force.

Applicant respectfully submits that the You device in view of Lazarevic does not render obvious claims 9 and 15-17. The You device fails to teach a worm gear, a drive gear, and a main

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shaft, and it is improper to combine You's device with Lazarevic. M.P.E.P. Section 2141.01(a) states: "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." In re Oetiker, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). Lazarevic is neither in the field of Applicant's endeavor nor reasonably pertinent to the particular problem addressed in the present application.

As mentioned above Lazarevic's tube cutter cannot use a shearing force to cut a tube because a shearing force would either shatter a plastic tube or deform a metal tube. A tube cutter has to revolve a scoring blade around the perimeter of a tube, coupled with a slow radial feed of the blade to extend the scoring action through the wall thickness. Such an action is not appropriate for cutting a cable, which is not hollow. Accordingly, Lazarevic is not in Applicant's field of endeavor, because a tube cutter operates much differently than a cable cutter.

Even assuming that it is proper to combine Lazarevic with You, the claimed invention is not rendered obvious. M.P.E.P. Section 2143.03 states: "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." (emphasis in original) In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Lazarevic fails to disclose a main shaft mounted for rotation in the housing, as required by independent claim 9. On the contrary, Lazarevic incorporates fixed post 69, about which the drive gear 19 and worm gear 27 rotate. Therefore, it is improper to use a combination of references which includes Lazarevic to reject independent claim 9 and dependent claims 15-17.

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In accord with the discussion in the preceding paragraph, the rejection of claim 17 is improper because Lazarevic fails to disclose a single bearing, much less three, which supports the main shaft. The structure in Lazarevic which corresponds to the main shaft is a fixed post, so there is no rotation and no need for bearings.

In view of the foregoing remarks, Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection and allowance of claims 9 and 15-17 as presented.

The rejection of claim 10 under 35 U.S.C. §103(a) as being unpatentable over the combination of You, Lazarevic and McHenry is improper for the reasons set forth above in connection with claims 1 and 2.

With regard to claim 12, even assuming that the combination of all four references discloses all of the elements present, there is nothing which teaches a configuration whereby the stabilizing handle and torque arm are disposed at opposite sides of the housing and capable of being removed and reattached to the other side. No single reference cited discloses a cable cutter with an adjustable stabilizing handle and a torque arm, much less a cable cutter with those components in the specific configuration claimed. Furthermore, given the necessary elements, the configuration claimed is more than a mere rearrangement of what is known. Placing the stabilizing handle on one side of the housing and the torque arm on the other improves the performance of the cable cutter by avoiding interference between the torque arm and the operator's hand on the stabilizing handle. Additionally, the claimed configuration results in superior stability by providing support structures on both lateral sides of the drive shaft.

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Claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable over You in view of Lazarevic and further in view of Hirabayashi (5,642,566). Claim 14 is allowable for the reasons set forth above in connection with claim 9.

Regarding the rejection of claims 18-19 under 35 U.S.C. §103(a) as being unpatentable over Hirabayashi, we note the Examiner's acknowledgment that Hirabayashi fails to show a third bearing. Hirabayashi neither discloses nor contemplates a main shaft which is supported by three bearings. On the contrary, as per conventional engineering wisdom, Hirabayashi uses only two bearings to support the rotatable main shaft.

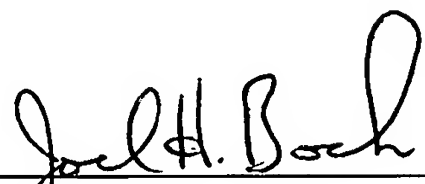
Furthermore, this does not constitute a mere duplication of parts, as asserted in the Office Action, because it improves the operation of the cable cutter. First, it is much easier to align a shaft with two bearings than with three bearings, so adding a third bearing would require more than just another part. Second, adding a third bearing provides needed support to the main shaft. The cable cutter of the present invention is capable of providing a large shearing force, by operation of the rotating main shaft in concert with at least one of the cutting blades. Compared to the standard two bearings, the addition of a third bearing provides greatly improved support in light of the forces acting upon the main shaft (page 8, paragraph 34). In contrast, the Hirabayashi device does not disclose a third bearing, because there is no main shaft which is subject to the forces associated with the present invention. Reconsideration is requested.

In view of all the foregoing, reconsideration and allowance of all pending claims are respectfully requested. Enclosed is our payment of \$250.00 for the new claims. If any

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additional fees are required, the Commissioner is hereby authorized to charge Deposit Account
No. 50-1039.

Respectfully submitted,

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